FACT SHEET

AIR TOXICS RULE FOR CHEMICAL RECOVERY COMBUSTION SOURCES AT KRAFT, SODA, SULFITE AND STAND-ALONE SEMI-CHEMICAL PULP MILLS

TODAY'S ACTION

- The Environmental Protection Agency (EPA) is issuing a final rule to reduce air toxic emissions from chemical recovery combustion sources at kraft, soda, sulfite and stand-alone semi-chemical pulp mills. Air toxics, also known as hazardous air pollutants, are those pollutants known to cause or suspected of causing cancer or other serious health effects.

- Chemical recovery combustion sources recover pulping chemicals by burning spent pulping liquor. These sources emit a variety of air toxics during the chemical recovery process. These air toxics vary by facility and process operation but include metals, gaseous organic air toxics, and hydrogen chloride.

- The health effects associated with exposure to these air toxics can include cancer, reproductive and developmental effects, gastrointestinal effects, damage to the nervous system, and irritation to the eyes, skin, and respiratory system.

- Today's rule applies to chemical recovery combustion sources at kraft, soda, sulfite, and stand-alone semichemical pulp mill that is are major sources of air toxic emissions. A "major" source emits 10 or more tons per year of a single pollutant, or 25 or more tons per year of a combination of pollutants.

- EPA estimates that 136 of the kraft, soda, sulfite and stand-alone semichemical pulp mills currently operating in the U.S. will be subject to today's rule.

BENEFITS AND COST

- The final rule will reduce nationwide emissions of air toxics by about 2,700 tons per year, a reduction of about 12 percent from 1997 levels. Toxics reduced include acetaldehyde, antimony, arsenic, benzene, beryllium, cadmium, chromium, cobalt, formaldehyde, lead, manganese, mercury, methanol, methyl ethyl ketone, methyl isobutyl ketone, nickel, selenium, styrene, toluene, and xylenes.

- Today's rule also will reduce emissions of other pollutants::
  - Particulate matter emissions will be reduced by about 23,200 tons per year, or 36 percent from 1997 levels;
  - Volatile organic compound emissions will be reduced by about 34,700 tons per year, or

46 percent from 1997 levels; and

< Carbon monoxide emissions will be reduced by about 61,500 tons per year, or 22 percent from 1997 levels.

! The rule also will lower occupational exposure level for employees working with chemical recovery combustion sources.

! EPA estimates that implementation of this rule will result in $241 million in capital costs industrywide, with total annual costs of $32.2 million. Capital costs for reporting and recordkeeping activities associated with the rule are estimated at $14.3 million, with total annual costs of $5.4 million.

BACKGROUND

! Under the Clean Air Act, EPA is required to regulate sources of 188 listed toxic air pollutants. For listed categories of "major" sources, the Clean Air Act requires EPA to develop standards that require the application of stringent air pollution reduction measures known as maximum achievable control technology, or MACT.

! The proposed rule for chemical recovery combustion sources at pulp mills was published in the Federal Register on April 15, 1998. The Federal Register reference is 63 FR 18783.

! EPA worked closely with state and local air pollution control agencies and industry representatives as it developed this rule.

WHAT THE RULE REQUIRES

! The final rule establishes emission standards for air toxic metals and gaseous organic air toxics for chemical recovery combustion sources at affected kraft, soda, sulfite, and stand-alone semichemical pulp mills that are considered major sources. The rule applies to each new recovery furnace and associated smelt dissolving tank at a kraft or soda pulp mill, each new lime kiln at a kraft or soda pulp mill, each existing or new sulfite combustion unit at a sulfite pulp mill, each existing or new semichemical combustion unit at a stand-alone semi-chemical pulp mill, and each existing chemical recovery system at a kraft or soda pulp mill. The chemical recovery system includes all existing recovery furnaces, smelt dissolving tanks, and lime kilns at a kraft or soda pulp mill.

! The rule uses particulate matter as a “surrogate” for metals, and methanol and total hydrocarbons as surrogates for gaseous organic air toxics. When a “surrogate” is used, an industry controls for a pollutant that is closely associated with emissions of other targeted pollutants. By controlling for the surrogate pollutant, emissions of the other associated pollutants are controlled at the same time. This method of control is effective and cheaper for industry.

- The final rule also allows the use of a "bubble compliance alternative" for determining compliance with the particulate matter emissions limits for existing process units (i.e., recovery furnaces, smelt dissolving tanks, and lime kilns) in the chemical recovery system at kraft and soda pulp mills. The bubble compliance alternative allows mills to set particulate matter emissions limits for each existing process unit in the chemical recovery system at the mill such that, if these limits are met, the total emissions from all existing process units are less than or equal to a mill-specific bubble limit. This mill-specific bubble limit is calculated based on the promulgated particulate matter emissions limits for each process unit and mill-specific gas flow rates and process rates.

- Some mills will be able to achieve the required emissions reductions by upgrading or installing control devices, such as electrostatic precipitators, wet scrubbers, fiber-bed demisters, or regenerative thermal oxidizers, depending on the type of source.

- The final rule provides flexibility to the industry by providing alternative compliance and monitoring options. Surrogates such as particulate matter, total hydrocarbons, and methanol may be used to reduce the emissions testing costs.

- Compliance options include complying with the particulate matter emissions limits or bubble compliance alternative for kraft and soda combustion units and complying with the emission limit or percent reduction standard for semichemical combustion units.

- Mills also must comply with the testing, monitoring, reporting, and recordkeeping requirements in today's rule. Non-direct contact evaporator recovery furnaces equipped with dry electrostatic precipitator systems are exempt from testing and monitoring requirements.

- Monitoring options include complying with opacity and control device parameter monitoring requirements, monitoring alternative parameters, or establishing and monitoring parameters for alternative control devices. The alternative monitoring options are subject to approval by the EPA administrator.

FOR MORE INFORMATION

- Interested parties can download the rule from EPA's web site on the Internet under "recent actions" at: *http://www.epa.gov/ttn/oarpg*. For further information about today's rule, contact Mr. Jeff Telander of EPA's Office of Air Quality Planning and Standards by phone at (919) 541-5427, or by e-mail at telander.jeff@epa.gov.

- The EPA's Office of Air and Radiation's (OAR's) home page on the Internet contains a wide range of information on the air toxics program and many other air pollution programs and issues. The OAR's home page address is: *http://www.epa.gov/oar*.